

Appln no. 09/844,965

Amendment After Final dated March 9, 2005

Reply to final Office Action of Dec. 21, 2004

REMARKS

Claims 1, 31, 36-39, 42, 45, 50-55, 58, 63-67, 70, 76-84, 89 and 113-118 have been amended. Claim 105 has been canceled. Claims 1-14, 18-33, 36-47, 50-60, 63-72, 75-98, 100, 102-104 and 106-118 are pending. Reconsideration of this application, as amended, is requested.

Each of the independent claims, claims 1, 77, 78, 79, 80, 81, 82, 83, 84, 89, 114, 115, 116, 117, and 118 has been amended to clarify that the systems and methods of the invention circulate and spray the liquid composition around and against the object rather than immersing the object. Various dependent claims have likewise been amended.

Claim Rejections - 112

Claims 1-14, 18-33, 36-47, 50-60, 63-72, 75-98, 100 and 102-118 were rejected under 35 U.S.C. 112, first paragraph. Applicants disagree. To facilitate the prosecution, however, the specific recitation "without immersion" has been removed from the pending claims. Applicants contend, however, that the overall concept of applying the composition without immersion is disclosed in the application as originally filed. See for example, paragraph [0169] (page 47, lines 2-4), where the disclosure indicates that the application of the composition " can include immersing the object in the ... composition, spraying the object in the ... composition, or a combination thereof". Such similar disclosure is also found in paragraph [0163] (page 45, lines 19-20) and paragraph [0173] (page 48, lines 3-4). These phrases show that composition can be applied by immersing, spraying, or a combination of immersing and spraying. Thus, spraying is exclusive of immersing. Thus, support for having the composition applied without immersing is present in the application.

As stated above, the claims have been amended to remove the recitation of "without immersion". Withdrawal of the rejection is requested.

Claim Rejections - 102

Claims 1-2, 5, 9-11, 14, 18-25, 29, 31-33, 36-40, 42-43 and 45-47 and 50-54 were rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 6,090,213 to Moyers. Applicants request withdrawal of the rejection, at least for the reasons provided below.

Appln no. 09/844,965

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As stated above, the claims have been amended to clarify that the composition(s) circulates around and is sprayed against the object, without having the object immersed in the composition(s).

As stated by the Office Action, Moyers teaches an automated cleaning system having a variety of stations. Ultrasonic cleaning with liquid circulation is achieved within a tank means wherein the object being treated is immersed in the liquid composition. The object is washed, rinsed, cleaned and dried by the system, each treatment being done in a separate station.

The system of the pending claims is different from that of Moyers, at least, because the claimed system does not immerse the object in the compositions. Rather, the liquid composition is circulated around and sprayed against the object. Application of the compositions in such a manner provides complete and total coverage of the object with the composition, without having the object sit or immerse in the composition. At least for this reason, Moyers does not anticipate the claims, and withdrawal of the rejection is requested.

Claim 77 was rejected under 35 U.S.C. 102(b) as being clearly anticipated by GB 947,700. Applicants request withdrawal of the rejection for the reasons provided below.

Claim 77 has been amended to clarify that the system has a liquid transporter that circulates around and sprays against the object the wash composition, antimicrobial composition, and rinse composition.

As stated by the Office Action, this GB reference teaches sterilization of articles by placing them within a vessel and immersing the articles within a cleaning composition.

The system of claim 77 is different from that of this GB reference, at least because the system of pending claim 77 does not immerse the object, but rather sprays the compositions on the object. At least for this reason, this GB reference does not anticipate claim 77 and withdrawal of the rejection is requested.

Claim Rejections - 103

Claims 55-56, 58-60, 63-68, 70-72 and 75 were rejected under 35 U.S.C. 103(a) as being unpatentable over Moyers. Applicants request withdrawal of the rejection for the reasons provided below.

Appln no. 09/844,965

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Moyers teaches an automated cleaning system having a variety of stations where the object being treated is immersed in the liquid composition. The object is washed, rinsed, cleaned and dried by the system, each treatment being done in a separate station. Moyers teaches a variety of stations.

The claims rejected here all depend, either directly or indirectly, from claim 1. At all of the stations, the object is not immersed in the compositions, but rather the liquid compositions are circulated around and sprayed against the object. There is no suggestion in Moyers, which teaches immersing objects in baths of solution, to have multiple stations where the composition is circulated around and sprayed against the object. At least for this reason, Moyers does not suggest or make obvious claims 55-56, 58-60, 63-68, 70-72 and 75, and withdrawal of the rejection is requested.

Claims 3-4, 6-8 and 12-13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Moyers above, and further in view of Hohmann et al., U.S. Patent No. 4,710,233. Applicants request withdrawal of the rejection for the reasons provided below.

Hohmann et al. teaches two means for applying ultrasonic energy to a tank or bath. Hohmann et al., similar to Moyers, uses a bath in which the object to be cleaned is immersed.

The Office Action states that it would have been obvious to include the ultrasonic probe of Hohmann et al. in the system of Moyers. This combination would create an immersion bath having ultrasonics, in which the object is immersed. Such a combination does not suggest the invention of the pending claims, in which the object is not immersed in the compositions, but rather the liquid compositions are circulated around and sprayed against the object. At least for this reason, Moyers and Hohmann et al. do not suggest or make obvious claims 3-4, 6-8 and 12-13, and withdrawal of the rejection is requested.

Claims 26-28, 41, 44, 57, 69, 76, 78-84, 87-92, 94-95, 97-98, 100, 103-110 and 112-118 were rejected under 35 U.S.C. 103(a) as being unpatentable over Moyers and further in view of GB 947,700. Applicants request withdrawal of the rejection for the reasons provided below.

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As provided above, the claims have been amended to clarify that the methods and systems of the invention include contacting the object with the composition(s) by spraying the composition(s). This application is done without immersing the object.

Both Moyers and this GB reference have been discussed above; both teach placing objects in a bath for cleaning. The Office Action states that it would have been obvious to include the gaseous sterilant injection means of the GB reference in the system of Moyers. This combination would create an immersion bath having sterilant injection means, in which the object is immersed. Such a combination does not suggest the invention of the pending claims, in which the object is not immersed in the compositions, but rather the liquid compositions are circulated around and sprayed against the object. At least for this reason, Moyers and this GB reference do not suggest or make obvious the rejected claims, and withdrawal of the rejection is requested.

Claims 30, 85-86, 102 and 111 were rejected under 35 U.S.C. 103 (a) as being unpatentable over Moyers together with GB 947,700, and further in view of GB 2,040,150 A. Applicants request withdrawal of the rejection for the reasons provided below.

As provided above, the claims have been amended to clarify that the methods and systems of the invention include contacting the object with the composition(s) by spraying the composition(s). This application is done without immersing the object.

Both Moyers and the GB '700 reference have been discussed above; both teach placing objects in a bath for cleaning. The GB '150 reference teaches cleaning and sterilizing objects in a tank containing a cleaning liquid, the objects being exposed to ultrasonics and radiation while being immersed. The Office Action states that it would have been obvious to include the radiation means of the GB '150 reference in the combined system of Moyers and GB '700. This combination would create an immersion bath including a radiation source, in which the object is immersed. Such a combination does not suggest the invention of claims 30, 85-86, 102 and 111, in which the object is not immersed in the compositions, but rather the liquid compositions are circulated around and sprayed against the object. At least for this reason, Moyers and the two GB references do not suggest or make obvious the rejected claims, and withdrawal of the rejection is requested.

Appln no. 09/844,965

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Claims 93 and 96 were rejected under 35 U.S.C. 103 (a) as being unpatentable over Moyer together with GB 947,700 and further in view of Hohmann et al. Applicants request withdrawal of the rejection for the reasons provided below.

As provided above, the claims have been amended to clarify that the methods and systems of the invention include contacting the object with the composition(s) by spraying the composition(s). This application is done without immersing the object.

All of Moyers, the GB '700 reference and Hohmann et al. have been discussed above; all teach placing objects in a bath for cleaning. The Office Action states that it would have been obvious to include the ultrasonic probe of Hohmann et al. in the combined system of Moyers and GB '700. This combination would create an immersion bath including an ultrasonic probe, in which the object is immersed. Such a combination does not suggest the invention of claims 93 and 96, in which the object is not immersed in the compositions, but rather the liquid compositions are circulated around and sprayed against the object. At least for this reason, Moyers, GB '700 and Hohmann et al. do not suggest or make obvious the rejected claims, and withdrawal of the rejection is requested.


SUMMARY

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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